REMARKS

Applicants acknowledge, with appreciation, the indication that claim 38-40 contain allowable subject matter. Claim 38 is amended. Claims 22-45 are pending in this application, with claims 22, 38 and 45 being the only independent claims. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

An IDS is being filed concurrently with the instant amendment. An acknowledgement of the receipt and entry of the above IDS into the filewrapper of the present application is respectfully requested.

Allowable Subject Matter

Claims 38-40 were found to contain allowable subject matter and would be allowable if rewritten in independent form. In view of the allowable subject matter, claim 38 has been placed into independent form in that claim 38 has been amended to incorporate the subject matter of independent claim 22 and intervening dependent claims 35 and 37. Accordingly, claim 38 is now allowable.

Dependent claims 39-40 are allowable for the same reasons as is independent claim 38, as well as for the additional recitations contained therein.

Rejection of Claims over Prior Art

Claims 22-24, 26-31, 33-36 and 45 stand rejected under 35 U.S.C. §102 as anticipated by U.S. Patent Application Publication No. 2002/0006040 ("*Kamada*").

Claims 25, 32 and 37-44 stand rejected under 35 U.S.C. §103 as unpatentable over *Kamada*. For the following reasons, reconsideration and withdrawal of these rejections are respectfully requested.

Independent claim 22 recites "a thermally conductive carrier having a flat mounting surface and a plurality of luminous spots arranged in a grid format on the flat mounting surface of said carrier, each of said luminous spots having a plurality of light emitting diodes and a submount". Independent claim 45 recites "a plurality of luminous spots arranged on said flat mounting surface, each of said luminous spots being arranged in a respective one of said holes and including a group of light emitting diodes arranged on a submount".

As described in more detail below, *Kamada* fails to disclose, teach or suggest these limitations because *Kamada* fails to teach or suggest "luminous spots having a plurality of light emitting diodes and a submount" or "luminous spots being arranged in a respective one of said holes and including a group of light emitting diodes arranged on a submount".

The Examiner (pg. 3 of the Office Action) asserts that:

> KAMADA et al....
>
> - each of the luminous spots having a plurality of light emitting diodes (as recited in claims 22 and 45), Figure 6, reference numbers 1a-1d;
>
> - each of the luminous spots having a submount, Figure 6, reference number 11...
>
> - the submounts exhibiting good thermal conductivity (as recited in claims 22 and 45), as evidenced in paragraph 0123, lines 1-6....

Accordingly, the Examiner alleges that the reference numeral 11 in FIG. 6 of *Kamada* is the claimed submount. Applicants disagree because, as will be described in more detail below, *Kamada* discloses that reference character 11 is a dent in a substrate or carrier 10.

Kamada discloses an LED luminaire formed by a plurality of LED chips disposed on a MID (molded interconnect device) substrate (see abstract of *Kamada*). FIG. 6 of *Kamada* clearly shows the location of a mere dent 11. According to Figs. 1 and 2 of *Kamada*, a three

dimensional circuit substrate 10 in the form of a MID is formed to have an array of dents 11 with a plurality of LED chips 1 mounted in the dents, i.e., on a bottom or side of the dents (see paragraph 0046 of *Kamada*). *Kamada* further discloses the method of manufacturing the substrate 10 in paragraphs 0047-0050 which involves injection molding a rectangular base from insulative material and then providing the dents 11 (see paragraph 0047). A metal film is applied and selectively removed to form circuit parts 12 (with the film) and non-circuit parts (without the film) (see paragraphs 0048-0050). The LED chips 1 are mounted directly in the dents 11 and are connected to the circuit parts 12 (paragraph 0051). Thus, *Kamada* merely teaches that reference numeral 11 indicates the location of a dent in the substrate 10.

Accordingly, *Kamada* fails to disclose "each luminous spot having a plurality of light emitting diodes and a submount" as expressly recited in independent claim 22. Likewise, *Kamada* fails to teach or suggest each of said luminous spots being arranged in a respective one of said holes and including a group of light emitting diodes arranged on a submount such that said submount is arranged between said group of light emitting diodes and said carrier, as expressly recited in independent claim 45.

Moreover, there is no teaching or suggestion in *Kamada* of submounts that exhibit a good thermal conductivity, as recited in independent claims 22 and 45. Paragraph [0123] of *Kamada* does <u>not</u> teach applicant's claimed submount that exhibits a good thermal characteristic, as asserted. *Kamada* (paragraph [0123]) states "according to the present embodiment, as has been described, the heat emitter 16A and LED chips 1 are brought into direct contact with each other by disposing the heat emitter 16A acting also as the reflector around the LED chips 1, so that the heat generated at the LED chips 1 can be removed as efficiently emitted through the heat emitter

16A.". While this section of *Kamada* does disclose a heat emitter 16A, there is no teaching or suggestion of a submount that has a good thermal conductivity.

Moreover, paragraph [0123] of *Kamada* describes an embodiment in which only one LED 1 is arranged on each heat emitter 16A (see Fig. 26). Independent claims 22 and 45 each require luminous spots that have a plurality of light emitting diodes and a submount. Therefore, without the luminous spots that have a plurality of light emitting diodes, there can be no submounts in *Kamada* that have a good thermal conductivity. Clearly, *Kamada* thus fails to teach or suggest a submount that would exhibit good thermal conductivity. In view of the foregoing, the rejection of independent claims 22 and 45 should now be withdrawn.

Dependent claims 23-37 and 39-44 are allowable for at least the same reasons as is independent claim 22, 38 and 45, as well as for the additional reasons contained therein.

In view of the above amendments and remarks, the application is now deemed to be in condition for allowance and notice to that effect is solicited.

Should the Examiner have any comments, questions, suggestions, or objections, the Examiner is respectfully requested to telephone the undersigned in order to facilitate reaching a resolution of any outstanding issues.

Respectfully submitted,
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By _____

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